

Sustainability Roadmap 2018-2019: Green Operations

Progress Report and Plan for Meeting
the Governor's Sustainability Goals
for California State Agencies

California Exposition & State Fair

Edmund G. Brown Jr., Governor

**Replace
with
Agency
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December 2017

California Exposition & State Fair

Sustainability Roadmap: Green Operations

Marcia Shell, Assistant General Manager
Operations
Primary Author(s)

Rick K. Pickering
Executive Director

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Acronyms

CALGREEN	California Green Building Code (Title 24, Part 11)
DGS	Department of General Services
EO	Executive Order
EPP	Environmentally Preferable Purchasing
GHGe	Greenhouse Gas Emissions
IEQ	Indoor Environmental Quality
LEED	Leadership in Energy and Environmental Design
MM	Management Memo
SAM	State Administrative Manual
SCM	State Contracting Manual

EXECUTIVE SUMMARY

The California Exposition & State Fair (Cal Expo) mission is to create a State Fair experience reflecting California including its industries, agriculture, and diversity of its people, traditions and trends shaping its future supported by year-round events.

CE&SF is an independent State Agency, established in law in the California Food & Agriculture Code. CE&SF receives no funding from the State of California. CE&SF is self-funded. The facility is located on nearly 800 acres in the American River Floodplain. The 350 developed acres house over 80 buildings totaling more than 1 million square feet. The buildings, along with the outdoor space have a diversity of uses including the annual California State Fair in July along with many events throughout the year. The property includes a water park, a multi-use sports facility, a horse racing track, a Satellite Wagering Facility, and a year around RV Park. The State Fair represents more than 60 percent of our annual revenue. The property functions as a venue for over 2.5 million visitors throughout the year.

Cal Expo's GHG emissions have decreased overall 23% since the baseline year 2010! Cal Expo has reached the 2020 goal at this time. Purchased electricity continues to be a challenge. 2017 was a very hot summer in Sacramento and purchased electricity costs were above the 2016 summer costs. The achievements thus far have been great. No new building construction is planned or anticipated in the near future. Cal Expo, hosting 2.5 million visitors a year, is very proud of its recycling program. There is a tremendous ongoing effort by staff to recycle aluminum, asphalt, concrete, green waste, paper, cardboard, plastic bottles, scrap metal, wood waste, glass, grease, e-waste, tires, and used oil. Environmentally preferable purchasing is important to our agency and we continue to make strides when feasible.

Cal Expo is a self-funded State Agency. The biggest challenge continues to be the cost of doing business as a large scale entertainment venue while stewarding the developed 350 acres of this property. California Exposition & State Fair does not receive State Funding for operational support. We continually strive to meet sustainability goals.

Executive Director Signature


Rick K. Pickering
Executive Director

SUSTAINABILITY GOALS

The Governor has directed California State Agencies to demonstrate sustainable operations and to lead the way by implementing sustainability policies set by the state. Sustainability includes the following general initiatives:

- Greenhouse Gas Emissions Reductions
- Building Energy Efficiency and Conservation
- Indoor Environmental Quality (IEQ)
- Water Efficiency and Conservation
- Monitoring Based Building Commissioning (MBCx)
- Environmentally Preferable Purchasing (EPP)
- Financing for Sustainability
- Zero Emission Vehicle (ZEV) Fleet Purchases
- Electric Vehicle Charging Infrastructure
- Monitoring and Executive Oversight

The Governor and legislature have directed state agencies to prioritize sustainable operations. The orders and legislation relevant to operations described in this roadmap are:

Executive Order B-18-12

EO B-18-12 and the companion *Green Building Action Plan* require state agencies to reduce the environmental impacts of state operations by reducing greenhouse gas emissions, managing energy and water use, improving indoor air quality, generating onsite renewable energy when feasible, implementing environmentally preferable purchasing, and developing the infrastructure for electric vehicle charging stations at state facilities. The Green Building Action Plan also established two oversight groups, the staff level Sustainability Working Group and the executive level Sustainability Task Force, to ensure these measures are met.

Executive Order B-16-12

EO B-16-12 directs state agencies to integrate zero emission vehicles (ZEVs) into the state vehicle fleet. It also directs state agencies to develop the infrastructure to support increased public and private sector use of ZEVs. Specifically, it directs state agencies replacing fleet vehicles to replace at least ten percent with ZEVs, and by 2020 to purchase at least 25% replacement fleet as ZEVs.

Executive Order B-30-15

EO B-30-15 declared climate change to be a threat to the well-being, public health, natural resources, economy, and environment of California. It established a new interim statewide greenhouse gas emission reduction target of 40 percent below 1990 levels by 2030, and reaffirms California's intent to reduce greenhouse gas emissions to 80 percent below 1990

levels by 2050. To support these goals, this order requires numerous state agencies to develop plans and programs to reduce emissions.

Assembly Bill 4

Assembly Bill (AB) 4, was passed in 1989. The State Agency Buy Recycled Campaign statutes are in Public Contract Code Section 12153-12217. The intent of SABRC is to stimulate markets for materials diverted by California local government and agencies. It requires state agencies to purchase enough recycled content products to meet annual targets, report on purchases of recycled and non-recycled products, and submit plans for meeting the annual goals for purchasing recycled content products.

SGC Resolution on Location Efficiency

Location efficiency refers to the greenhouse gas emissions arising from the transportation choices of employees and visitors to a building as determined by the Smart Location Calculator. Adopted on December 6, 2016 the resolution directs members of the Strategic Growth Council to achieve a 10% improvement in the Smart Location Score of new leases compared to the average score of leased facilities in 2016.

State Administrative Manual & Management Memos

The following Management Memos (MM) currently impose requirements for green operations on the department under the Governor's executive authority:

- MM 15-04: Energy Use Reduction for New, Existing, and Leased Buildings
- MM 15-06: Building and Grounds Maintenance and Operation
- MM 14-05: Indoor Environmental Quality: New, Renovated, And Existing Buildings
- MM 14-07: Standard Operating Procedures For Energy Management In State Buildings

GREEN OPERATIONS

Greenhouse Gas (GHG) Emissions

State agencies are directed take actions to reduce entity-wide greenhouse gas emissions by at least 10% by 2015 and 20% by 2020, as measured against a 2010 baseline.

Cal Expo has achieved its 2015 reduction goal and is currently exceeding its 2020 goal.

We are working to keep carbon reduction at current levels with an increase in facility use.

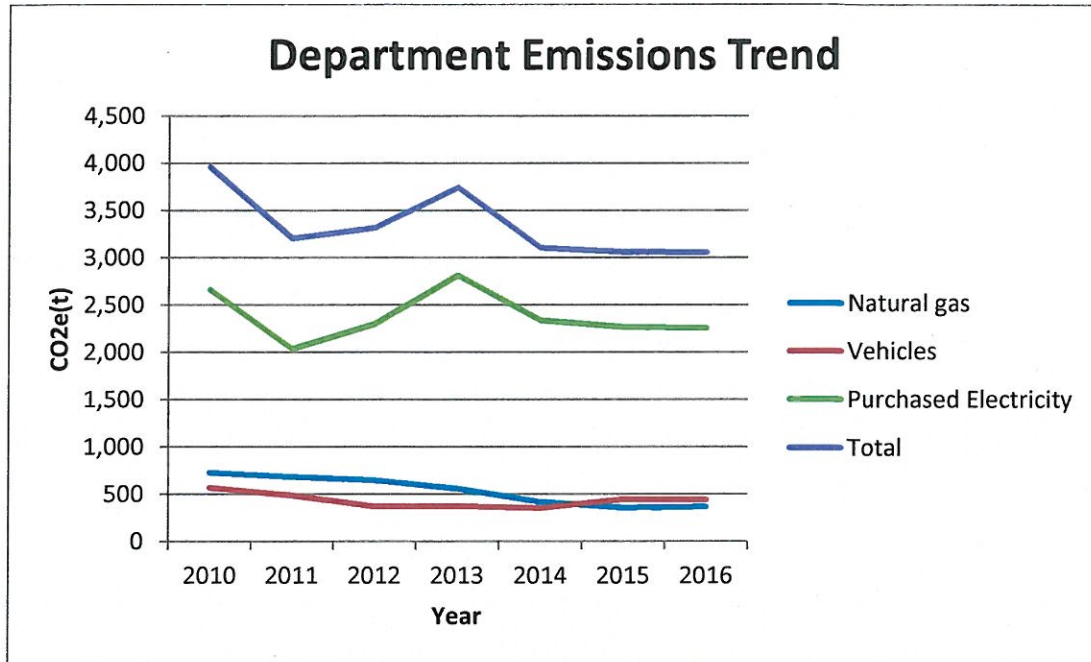
Cal Expo will continue to identify vehicles with high petroleum use for ZEV/plug-in hybrid replacement.

Cal Expo has approximately 1MW of solar photovoltaic power currently installed and we continue to explore additional MW of additional capacity if funding can be found.

Table 1: GHG Emissions since 2010

	2010	2011	2012	2013	2014	2015	2016	Percent Change since Baseline
Natural gas	726	684	647	558	415	354	365	-50%
Vehicles	569	486	369	372	353	443	439	-23%
Purchased Electricity	2,662	2,035	2,300	2,813	2,336	2,263	2,254	-15%
Total	3,957	3,205	3,316	3,743	3,104	3,059	3,057	-23%

Graph 1: GHG Emissions since 2010



Building Design and Construction

Executive Order B-18-12 requires that all new buildings, major renovation projects and build-to-suit leases over 10,000 square feet shall obtain LEED Silver certification or higher. All new buildings under 10,000 square feet shall meet applicable CalGreen Tier 1 Measures. New buildings and major renovations greater than 5,000 square feet are also required to be commissioned after construction.

We have no new buildings or renovations built after July 1, 2012. We have no plan for any new buildings or renovations for the future at this time.

Table 2: New Construction since July 1 2012

Project Name	LEED Level Achieved	Commissioning Performed (Y/N)
None		

State agencies shall implement mandatory measures and relevant and feasible voluntary measures of the California Green Building Standards Code (CALGreen), Part 11, related to indoor environmental quality (IEQ) that are in effect at the time of new construction or alteration and shall use adhesives, sealants, caulks, paints, coatings, and aerosol paints and coatings that meet the volatile organic chemical (VOC) content limits specified in *CALGreen*.

No new buildings or renovations have been built after July 1, 2012. No new buildings or renovations are planned but if and when they are, the building will meet LEED Silver certification if over 10,000 square feet or CalGreen Tier 1 if smaller than 10,000 square feet. Our Planning Department staff is aware of the required standards and will implement them in future projects. Contracts with building, contractors, etc. contain clauses indicating the standards and the requirements for meeting those standards.

LEED for Existing Buildings Operations and Maintenance

All State buildings over 50,000 square feet were required to complete LEED-EBOM certification by December 31, 2015 and meet an Energy Star rating of 75 to the maximum extent cost effective.

Our Livestock building is over 50,000 square feet and not conducive to Leed certification. Our outdoor Grandstand building/seating is over 50,000 square feet and not conducive to Leed certification.

Table 3: LEED for Existing Buildings and Operations

Number of Buildings over 50,000 sqft and eligible for LEED EBOM	Number of Building over 50,000 sqft that have achieved LEED EBOM	Percentage of buildings over 50,000 sqft required to achieve LEED EBOM that have achieved it

Indoor Environmental Quality

When accomplishing Alterations, Modifications, and Maintenance Repairs and when relevant and feasible, state agencies shall implement the mandatory and voluntary measures of the California Green Building Standards Code (CALGreen), Part 11, related to indoor environmental quality.

Indoor Environmental Quality must also be maintained through the use of low emitting furnishings, cleaning products and cleaning procedures.

New Construction and Renovation

No new construction or renovation has occurred after July, 2012, and no new construction or renovation is planned. There are no new building alterations planned. If a new construction or renovation is planned in the future, Cal Expo will include the mandatory and voluntary measures of CalGreen, Part II within the contracts for those construction or renovation projects.

Cal Expo uses only cleaning products that meet Green Seal GS-37, GS-53, GO-8 or GS-52 Standard.

Cal Expo uses only adhesives, sealants, caulks, coatings, carpet cushions, composite wood products, flooring, insulation, acoustical panels that meet VOC limits specified in CalGreen.

Cal Expo will use carpet systems, carpet cushions, composite wood products, vinyl flooring systems, thermal insulation, acoustical ceilings and wall panels that met VOC emission limits specified in Cal Green in any planned new construction/renovation. Purchases are planned by an Area Operations Supervisor who supervises cleaning operations. Purchases for adhesives, sealants, etc. are planned by Maintenance staff. These purchases are also reviewed by a Business Services employee. All are required to adhere to the Green Buildings Standards Code whenever feasible.

Furnishings

Cal Expo has purchased used furniture that has been surveyed out/surplus from other State Agencies.

Cleaning Products

Cal Expo uses only cleaning products that meet Green Seal GS-37, GS-53, GO-8 or GS-52 Standard.

Cleaning Procedures

Cal Expo is following the cleaning procedures of Green Seal Standard GS-42. Janitors have ongoing updated training and are engaged with the green cleaning procedures. Entryways are maintained as specified in CalGreen Section A5.504.5.1. Cal Expo is attempting to follow the Carpet and Rug Institute's Carpet Maintenance Guidelines for Commercial Applications and uses vacuum cleaners that meet the Carpet & Rug Institute's TM 113-110901 Standard.

HVAC Operation

Cal Expo Stationary Engineer inspects and documents HVAC systems annually including all elements specified in Management Memo 14-05 and OSHA's Title 8 Section 5142. Within design specifications, Cal Expo is operating HVAC systems to provide no less than the minimum required ventilation during work hours. Air filters with a MERV rating of no less than 11 and no less than 13 are used in areas where US EPA standards for PM10 and PM2.5 levels are routinely exceeded. MERV 16 or HEPA filters are used in residential buildings that house sensitive groups such as the elderly or children. Cal Expo has no ability to purge buildings prior to daily occupancy with outdoor air. Buildings are kept clean and sanitary as required by Title 8 Section 3362. Cal Expo is researching options for a computer based preventative maintenance program for all HVAC equipment as described in the California Best Practices Manual, Section 2.3.5.

Cal Expo within design specifications is operating HVAC systems to provide no less than the minimum required ventilation during work hours.

Cal Expo, with the support of Local 39 AFL/CIO provides factory training for stationary engineers on proper operation and maintenance of all equipment building management systems.

Cal Expo has no ability to purge buildings prior to daily occupancy with outdoor air as required in Section 120.1©2 of the 2013 California Code of Regulations Title 24, Part 6.

Integrated Pest Management

Department staff and contracted pest management companies will follow an integrated pest management (IPM) strategy that focuses on long-term prevention of pest problems through monitoring for pest presence, improving sanitation, and using physical barriers and other

nonchemical practices. If nonchemical practices are ineffective, [Tier 3 pesticides](#) may be used, progressing to Tier 2 and then Tier 1 if necessary.

Contractor Advanced Integrated Pest Management is required to maintain appropriate agriculture license, categories A, B, Ca, and D and as well as a Structural Pest Control License Branch 2 and Branch 3. Contractor must provide appropriate MSDS information to Cal Expo prior to applications and keep an updated site log book of materials applied, locations, dates, and times for tracking purposes.

Note for table 4: List all current pest control contracts held by the department. Note whether IPM as described in MM 15-06 is required in the contract.

Table 4: Pest control contracts

Pest Control Contractor	IPM Specified (Y/N)
Advanced Integrated Pest Management	Yes

Environmentally Preferable Purchasing

State agencies are required to purchase and use environmentally preferable products (EPP) that have a reduced effect on human health and the environment when compared with competing goods that serve the same purpose.

Reducing Impacts

The environmental impact of the goods we buy is often larger than the impact of our own department operations. Our department is committed to reducing the environmental impact of our goods and services we purchase.

The SABRC product requirements are included in solicitations for quotes for all janitorial products. This year we purchased 100% recycled plastic display risers. This is a substantial number of risers used during the State Fair. The post-consumer content compliant products are the products that are purchased. Whenever feasible, our agency will make purchasing decisions with the goal to save resources and energy. We have made great strides over the last few years by purchasing used equipment available from other state agencies.

Paint: Paint is re-mixed on site so unused paint is mixed and used. Cal Expo uses DMP and the recycled DMP paint is limited and expensive. The interior recycled paint is not low or no VOC and not suitable for human health reasons so it is not used for office interiors.

All IT products are energy star rated and purchasing meets specifications of statewide contracts. Janitorial supplies and cleaners are all within purchasing standard compliant. For paper products we have consistently exceeded the mandates for both printing and writing paper. Recycle bins are available throughout the property for guest disposal of paper, plastic water bottles, and packaging material. Recycle boxes are in each department and also at the

employee's work stations or offices. Approximately 90 low flow toilets have been installed across the property to replace older toilets that used substantial more water.

Measure and Report Progress

Cal Expo tracks and measures progress to improve EPP spending by requiring that janitorial supplies and paper supplies are in compliance with SABRC purchasing when bids are initially solicited for purchasing. Office equipment and office furnishings are acquired from surveyed out surplus from other State agencies. Due to budget constraints we are not able to purchase new office furnishings. We almost exclusively buy remanufactured toner. Cal Expo requires that only EPA Energy Star appliances and equipment are purchased. Cal Expo uses only low or zero VOC paint in our building interiors, improving indoor air quality. Items are tracked by department and then reviewed by our Business Service Officer. The SABRC report is completed yearly which demonstrates progress and also demonstrates the challenges.

Cal Expo takes pride in its recycling programs that include aluminum, asphalt, concrete, green waste, paper, cardboard, plastic bottles, scrap metal, wood waste, glass, grease, e-waste, tires, used oil and automotive wastes that are collected and sorted for shipment to commercial recyclers. This agency also pursues all avenues to provide information electronically to support our mission to lower generation in the first place. Exhibits are shared with other fairs so that materials developed for the State Fair can be used to save resources at similar operations throughout the state.

Table 5: State Agency Buy Recycled Campaign 2015/ 2016 Performance

Product Category	SABRC Reportable Dollars	SABRC Compliant Dollars	% SABRC Compliant
Antifreeze	707.48	0	0%
Compost and Mulch	21600.00	21600.00	100%
Glass Products	10420.00	0	0%
Lubricating Oils	2243.00	2243.00	100%
Paint	18143.83	0	0%
Paper Products	84330.00	71641.00	84.95%
Plastic Products	44501.00	25607.00	57.54%
Printing and Writing Paper	34448.58	19548.40	56.75%
Metal Products	125488.00	125488.00	100%
Tire Derived Products	0	0	0%
Tires	6439.82	850.00	13.20%

50% recycled antifreeze is purchased instead of the mandated 70% recycled product. Our fleet is old. Our garage employees maintain these older vehicles and feel the 50% recycled product is the most effective for the older vehicles that we have. Glass products that were purchased were car windshield and culinary "tasting" glassware...i.e. wine tasting, beer tasting. Paint, as discussed earlier, is primarily DMT; however, the Cal Expo paint shop remixes old paint to acquire the most use. The largest purchase of tires was for tire replacement on law enforcement vehicles. Retreads are not the preferable safety option for vehicles that are operated by police officers.

Table 6: Commodities categories with the greatest Potential to Green

Commodity	2016 Total Spend (\$)	2016 Percent EPP Spend (%)	EPP Target (%)
Glass	10,420.00	0	20%
Tires	6439.82	13.2%	20%
Tire derived	0	0	10%
Paint	18,143.83	0	10%
Plastic Products	44501.00	57.54%	65%

Sustainability Development and Education

Cal Expo notifies bidders of the EPP requirements when products are solicited for purchase. We do not have any construction contracts and no new construction is planned. We have a short term transportation agreement for lease of buses for 17 days a year. These buses are CNG. We have one employee, an AGPA, who has completed EPP training.

Total Number of Employees Assigned as Buyers:_____

Table 7: Buyers who have completed EPP Training

CalHR Classification	Total Number of Buyers	Percent Completing EPP Training	Commitment to have buyers complete EPP training (%)
AGPA	1	100%	100%
Area Operations Supervisor	1	0	100%

Location Efficiency

Location efficiency refers to the effect of a facility's location on travel behavior and the environmental, health and community impacts of that travel behavior including emissions from vehicles. Locating department facilities in location efficient areas reduces air emissions from state employees and users of the facilities, contributes to the revitalization of California's downtowns and town centers, helps the department compete for a future workforce that prefers walkable, bikeable and transit-accessible worksites and aligns department operations with California's planning priorities.

Our department's goal is that the average location efficiency score for all new leases be 10% higher than our average on of Jan 1 2017.

Cal Expo has no leases of other properties.

Table 8: Smart Location Score for new Leases

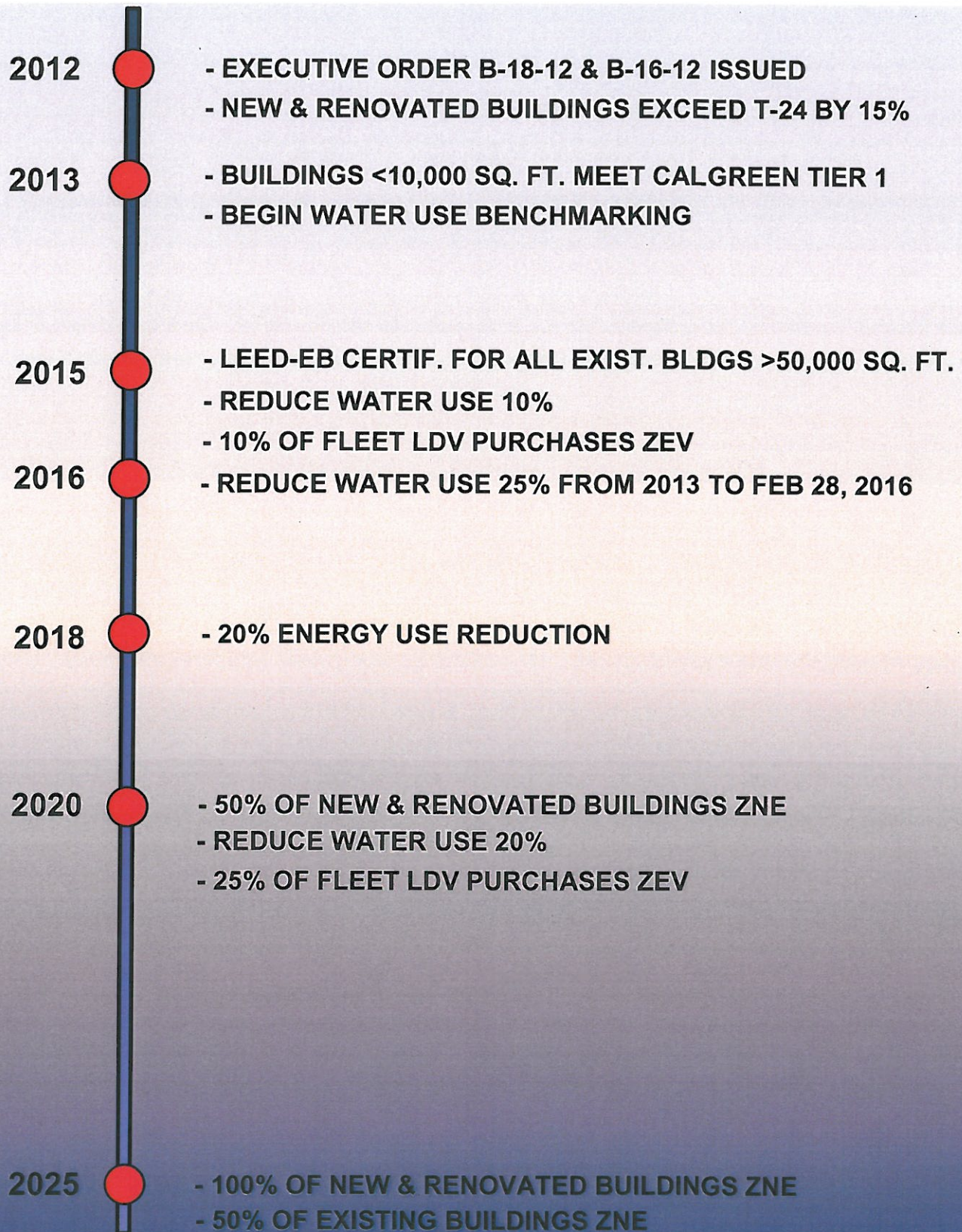
Facility name	Smart Location Calculator Score
Lease 1 NA	
Lease 2	
Lease 3	
Average	
Baseline	
% change from Baseline	

Cal Expo has no leases of other properties.

Table 9: Lowest Smart Location Score Leases

Facility name	Smart Location Calculator Score
Lease 1 N/A	
Lease 2	
Lease 3	

SUSTAINABILITY MILESTONES & TIMELINE



DEPARTMENT STAKEHOLDERS

Greenhouse Gas Emissions	
Robert Stroud	Chief of Plant Operations

Building Design and Construction	
Ron King	Construction Supervisor II

LEED for Existing Buildings Operations and Maintenance	
Robert Stroud	Chief of Plant Operations

Indoor Environmental Quality	
James Dailey	Stationary Engineer

Integrated Pest Management	
Melodee Dailey	Maintenance Supervisor II

Environmentally Preferable Purchasing	
Business Services	AGPA

Location Efficiency	
	N/A